Application Guidelines for

the Cooperative Research Program in 2015

The Primate Research Institute (PRI) is recruiting researchers for the Cooperative Research Program in 2015. See details below.

1. Eligibility Requirements for Applicants

Researchers, graduate students (including senior year undergraduate students who will proceed to graduate school) with Institute/University affiliations or equivalent as of April 1, 2015. Application by graduate students is encouraged.

2. Research Program Period

April 1, 2015- March 31, 2016

3. Research Projects

Three categories of research projects (A, B, and D) are available to overseas researchers. Please refer to page 5 for further details.

- **A: Planned Research Projects**
- **B: Individual Research Projects**
- C: Group Research Projects (Japanese applications only)
- **D: Continuously Accepted Research Projects**

4. Application Documents

Applicants should download the specified documents through the website provided below. Please submit your application through the prospective host (corresponding) researcher at PRI after filling out the required documents.

http://www.pri.kyoto-u.ac.jp/research/kyodo2015/kyodo-j.html

5. Application Deadline

Friday, January 16, 2015

*Except for applicants to type D (Continuously Accepted Research Projects) who wish to begin their research after April, 2015.

6. Research Allotment

All category allotments will consist of 1 principal researcher and supporting (collaborating) researchers.

7. Number of Applications

Applications are made for one project for one person, including a co-researcher for Group Research.

8. The Prospective Host (Corresponding) Researcher at PRI

Please contact the prospective host (corresponding) researcher at PRI in advance to apply for the expected research program and facilitate commencement of the research activity. For contact details, please refer to PRI web site.

If you are unsure with your research area at PRI, you need to contact the Cooperative Research Section in PRI. The section will intermediate for you and the prospective host (corresponding) researcher at PRI.

9. Results

Selection will be done by the Cooperative Research Advisory Committee. We will contact successful applicants after decisions are made by the Center Management Committee. The results will be notified sometime in the middle of March, 2015.

10. Graduate students, post-doctoral researchers or the equivalent

You must obtain your supervisor's consent if you apply as a principle researcher. We will contact your supervisor for confirmation.

11. Requirements after Selection

You may be required to submit IOU, MTA and Health Certification after acceptance. You will be informed of the details by your host (corresponding) researcher at PRI.

12. Contact to Current Institution

It is the responsibility of the applicant or host (corresponding) researcher to inform the applicant's current institution regarding commencement of the research project in advance.

13. Reports

The principal researchers of adopted projects must submit a "Results Reports" upon completion of the research period. In addition, you must acknowledge the Cooperative Research Program in your presentations and publications. When you publish a paper that is derived from the Cooperative Research Program in a peer-reviewed journal or as a presentation at a scientific congress, you must inform to PRI online. Refer to an e-mail that informs you on how to upload them. If you have changed your e-mail address since the last time you were adopted in this program, please inform us. If you have been adopted in the past and are applying in this year, your publication results which are informed by January 16, 2015 will be considered during the selection process.

14. Information Disclosure Request

The collected applications may be open to the public, with the exception of identifiable

information. Please specify any information that you wish to be kept private by underlining the text in the application. This will be considered at the time of publication.

15. Handling Personal Information

Submitted personal information for this project will be protected in conformity with Kyoto University's Privacy Policy.

Kyoto University's Privacy Policy; <u>http://www.kyoto-u.ac.jp/ja/privacy_policy</u> The Rule of Individual Information Protection on Kyoto University <u>http://www.kyoto-u.ac.jp/uni_int/kitei/reiki_honbun/aw00209631.html</u>

16. Accommodations

PRI accommodation is available.

17. Further Information / Inquiries

The Cooperative Research Section in PRI Email: pri-kyodo@mail2.adm.kyoto-u.ac.jp

Introduction to the Cooperative Research Program

The Cooperative Research Program consists of A: "Planned Research Projects", B: "Individual Research Projects", C: "Group Research Projects", D: "Continuously Accepted Research Projects". You are permitted to apply the same project with the one in the previous year. In that case, you are required to explain the progress of the project and the reason why you need to continue the project in the application. It will be considered during the selection process.

In PRI, all adopted research projects are bound by the rules of the "Guide for the Care and Use of Laboratory Primates" and of the "Guidelines for the Study of Wild Primates and the Introduction of Wild-born Primates for Research" from the standpoint of animal welfare and wildlife conservation for handling primates. Thus, we accept only research projects, which follow the above-mentioned guidelines. Please fully consult with the prospective host (corresponding) researcher at PRI. Please refer to the PRI webpage about these guidelines in advance. Please be aware that it may not be possible to adopt projects in which preclinical or similar tests are performed with primate research subjects.

In case of experimentation with and observation of primates at PRI, all researchers are required to obtain a handling license from PRI depending on the level of invasiveness of the research before commencement of the project. The researchers are also recommended to attend educational training regarding animal experimentation at their current institutions. If you did not undertake such training at your institution before arrival at PRI, you are required to take Kyoto University's educational training thereafter. A license valid for three years will be provided only after attending lectures and practical training for animal handling.

For experimentation involving infectious diseases, researchers must apply for approval from the biohazard committee, and thus should receive the agreement of the prospective host (corresponding) researcher at PRI in advance to process the required documentation. Experimentation involving genetic recombination is not allowed within the Cooperative Research Program. Concerning studies of living primates, <u>it is essential to submit a photocopy of your negative results of the Certification of Tuberculin Test after project adoption.</u>

Following project adoption, if the applicant fails to comply with the "Guide for the Care and Use of Laboratory Primates", the "Guidelines for the Study of Wild Primates and Use of Wild-born Primates", or any of the rules set by the Cooperative Research Program, he or she may be imposed a penalty, including the possible withdrawal of qualifications.

We have strict regulations regarding the use of research funds (e.g. you will be required to post a postcard from all travel destinations to certify that you are following your proposed schedule. Violation of regulations is subject to research cancellation and withdrawal of PRI research qualifications.

In addition, the results of the Cooperative Research Program are subject to "Kyoto University's intellectual property privacy policy". All inventions (patents, utility model rights, design rights, trademarks) stemming from research results will be handled under contractual agreement. See the following website for further information:

http://www.saci.kyoto-u.ac.jp/wp-content/uploads/2007/06/tizai_policy070628.pdf

Large-sized equipment at PRI (MRI, CT and so on) is also available. We actively recruit research projects using these facilities. Please contact the prospective host (corresponding) researcher for details.

A: Planned Research Projects (can be adjusted within a maximum of 200,000 JPY. Please contact your prospective host (corresponding) researcher at PRI for details.)

This cooperative research will be carried out under close collaboration with non-PRI researchers and PRI faculty member as promoters. Each project will in principle be maintained for 3 years, and the results will be compiled at the end of study period (even "Planned Research" can be adopted as "Individual Research" or "Continuously Accepted Research Projects" after discussion with the prospective host (corresponding) researcher).

Summary of the assigned project (in parentheses: the prospective host (corresponding) researcher; underlined: principal researcher)

oAdvances in primate brain science and its collaboration with genome science

[Prospective Schedule: 2013.4.1-2016.3.31]

(<u>Masahiko Takada</u>, Katsuki Nakamura, Takao Oishi, Shigehiro Miyachi, Hirohisa Hirai, Hiroo Imai)

To pursue brain science research with nonhuman primates is quite useful for elucidating higher brain functions and the pathophysiology of psychiatric and neurological disorders. In this project, we aim at developing foreseeing research works, especially in combination with genome science, using novel monkey models and cutting-edge techniques.

For inquiry: takada.masahiko.7x@kyoto-u.ac.jp

oInternational Cooperative Research on Evolution and Conservation of Asian Primates.

[Prospective Schedule: 2014.4.1-2017.3.31]

(<u>Yoshi Kawamoto</u>, Michael A. Huffman, Goro Hanya, Yamato Tsuji, Andrew MacIntosh, Hiroyuki Tanaka)

This program aims to promote studies on the evolution and conservation of Asian primates from ecological, ethological, population genetic and parasitological perspectives. We also expect to further international cooperative research in this program by accepting projects which include foreign applicants.

For inquiry: kawamoto.yoshi.3s@kyoto-u.ac.jp

oMultidisciplinary study of craniodental morphology

[Prospective Schedule: 2015.4.1-2018.3.31]

(<u>Masanari Takai</u>, Takeshi Nishimura, Naoko Egi, Eishi Hirasaki, Toshio Mouri)

We are going to promote an multidisciplinary study on the craniodental morphology and its function mainly of primates, such as the Geometric Morphometric studies of surface morphology, the morphological analysis of internal structure using Computed Tomography (CT), kinematic analyses, and numerical simulations..

For inquiry: takai.masanaru.2s@kyoto-u.ac.jp

 \circ Integrated studies on development and aging of cognition, physiology and morphology in primates

[Prospective Schedule: 2015.4.1-2018.3.31]

(<u>Masaki Tomonaga</u>, Yuzuru Hamada, Takako Miyabe, Misato Hayashi, Ikuma Adachi) In this project, we promote the integrative, comparative studies on cognition, physiology and morphology, and behavior in primates at the various developmental stages, Studies with variety of species and various disciplines are welcome.

For inquiry: tomonaga.masaki.4m@kyoto-u.ac.jp

B: Individual Research Projects (200,000 JPY maximum)

Aiming for total development of primate research, we are recruiting under the project "Individual Research", which is based on an original study designed by applicants unrelated to the above "Planned Research Projects" ("Individual Research" can be adopted as "Continuously Accepted Research Projects" after discussion with your prospective host (corresponding) researcher).

D: Continuously Accepted Research Projects

Research facilities, subjects, data, and samples are all available at PRI. These facilities, subjects, data, and samples must be used appropriately. Other travel and research expenses will not be supported. Available materials are as follows: 1) bodily fluids (blood, saliva, and semen), 2) internal organs, 3) muscles, 4) hair, 5) teeth and bones, 6) excreta, 7) DNA and RNA, 8) others (including experiments, behavioral testing, and observation). Reference materials and specimens are also available. Regarding the adoption of research in the middle of the year, changes in available subjects cannot be made. Concerning the use of live primates, as a rule, you are eligible to apply only for research in which multiple use of your subject animals is possible. Please contact the prospective host (corresponding) researcher about this in advance.

Animal Experiment Plan for the Cooperative Research Program at the Primate Research Institute, Kyoto University

In the event of planned research involving animal experiments (including plan revisions), submission of the Animal Experiment Plan at the Primate Research Institute, Kyoto University is required. The project must be admitted as a research project that conforms to the Animal Experiment Plan at the Primate Research Institute, Kyoto University. Permission to conduct research can only be given after the project has been approved. The supervisor in charge of the experiment must be a faculty member at PRI. Therefore, please contact your prospective host (corresponding) researcher regarding application submission and detailed plans in advance of the planned experiment.

Utilization of Data and Samples for the Cooperative Research Program of the Primate Research Institute, Kyoto University

Biological samples provided (transferred or loaned) from breeding populations at PRI for the Cooperative Research Program will be treated under the following conditions. Applicants must confirm their compliance with the terms and conditions stated below upon submission of their application. Here "Data and Samples" include: 1) bodily fluids (blood, saliva, and semen), 2) internal organs, 3) muscles, 4) hair, 5) teeth and bones, 6) excreta, 7) DNA and RNA, 8) others (materials to be approved by PRI).

Regarding the handling of biological materials or samples from breeding/housed populations at the Primate Research Institute, Kyoto University, provided for the Cooperative Research Program:

- 1. Biological materials should be used for the Cooperative Research Program only and should not be used for any other purpose.
- 2. Commercial uses are prohibited.
- 3. Biological materials or samples are not authorized for reuse and cannot be given or loaned to third parties.
- 4. The recipient shall return all biological materials to PRI at the expiration of the program or dispose of them in an appropriate manner.
- 5. PRI accepts no liability for any outcome of the use of these biological materials.

Documentation for the loan or purchase of all biological materials or samples will need to be completed after applications are selected. Confirmation of compliance with the above regulations is required upon submission of your application. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) or other regulations may prohibit bringing materials from outside of Japan, so please seek advice from your prospective host (corresponding) researcher at PRI.

Availability and Number of Primate Species

As of 2015, the following primates are housed at PRI:

I. Experimental Sacrifice and Surgery

1. Scheduled to be provided (M= male, F=female)

| Name of Species | Weight, sex | Numbers | Name of Species | Weight, sex | Numbers |
|--|-------------|---------|--|-------------|---------|
| Japanese macaque (<i>Macaca fuscata</i>) | 2-15 kg | 20 | rhesus macaque (<i>Macaca mulatta</i>) | 2-15 kg | 20 |
| common marmoset (<i>Callithrix jacchus</i>) | 20-500 g | 10 | Taiwan macaque (<i>Macaca cyclopis</i>) | M- 3, F- 1 | 3 |
| hamadryas baboon (<i>Papio hamadryas</i>) | F- 3 | 3 | bonnet macaque (<i>Macaca radiata</i>) | | 1 |
| owl monkey (<i>Aotus trivirgatus</i>) | | 8 | brown capuchin (<i>Cebus apella</i>) | | |
| | | | | | |

Prospective Japanese and rhesus macaque study subjects are mainly 1-3 years old. For detailed information, or information regarding other species, please contact your prospective host (corresponding) researcher at PRI.

II. Non-sacrificial Experiments (e.g. observation)

| Name of Species | Number | No | ote | | | | |
|------------------|--------|-----------|-----|------------------------|----------------------|------------|---|
| Japanese macaque | 36 | open | (| 1,200 m² • | Age, and family tree | well-known |) |
| (Macaca fuscata) | 43 | enclosure | (| 850 m² • | 11 | |) |
| 11 | 46 | " | (| 500 m² • | // | |) |
| " | 53 | " | (| 730 m² • | 11 | |) |
| " | 47 | " | (| 4,600 m ² • | 11 | |) |
| " | 30 | " | (| 4,500 m ² • | // | |) |
| 11 | 41 | " | (| 5,400 m ² • | 11 | |) |
| " | 38 | 11 | (| 3,400 m² ∙ | 11 | |) |
| rhesus macaque | 51 | 11 | (| 530 m² • | 11 | |) |
| (Macaca mulatta) | 38 | 11 | (| 700 m² • | " | |) |

1. For behavioral observation (all socially-housed primates)

Behavioral observation of animals in open enclosures or group cages can be approved at any time. However, to avoid conflict with other researchers, please seek advice from your prospective host (corresponding) researcher in advance.

2. For drawing blood or behavioral experiments (the numbers and species are subject to change)

| Name of Species | Numbers | Name of Species | Numbers |
|-----------------|---------|-----------------|---------|
|-----------------|---------|-----------------|---------|

| chimpanzee | 13 | long-haired spider monkey | 1 |
|--------------------|-----|---------------------------|----|
| (Pan troglodytes) | | (Ateles belzebuth) | |
| agile gibbon | 3 | owl monkey | 8 |
| (Hylobates agilis) | | (Aotus trivirgatus) | |
| Japanese macaque | 100 | cotton-top tamarin | 5 |
| (Macaca fuscata) | | (Saguinus oedipus) | |
| rhesus macaque | 50 | common marmoset | 10 |
| (Macaca mulatta) | | (Callithrix jacchus) | |
| bonnet macaque | 1 | brown capuchin | 8 |
| (Macaca radiata) | | (Cebus apella) | |

For convenience, three flexible categories of research are distinguished as behavioral observations, drawing blood, and behavioral experiments. Blood draws from groups used for behavioral observation should be done in September- November, during the regular health checkups, of each perspective group, conducted by PRI staff. Please note that, due to health concerns, some of the individuals in groups used for behavioral observation may be removed in the autumn of each year. In the event of planning to conduct research with numbers of subjects exceeding those listed above, justification should be provided in the "Caution" section of the form "Living Primate Handling Plan" (see below).